



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of:
SMITH, KEVAN

Serial No.: 09/916,521

Filed: 07/27/2001

Title:
MODULAR ELECTRONIC
EQUIPMENT ENCLOSURE
COMPRISING SEALED
INTERFACE MODULE

Group Art Unit No.: 2831

Examiner: Ngo, Hung V

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APPEAL BRIEF

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Following are the requisite statements under 37 C.F.R. § 1.192:

I. Real Parties in Interest

Kevan Smith, Hans Marosfalvy, Randall D. Hutchison, and Robert Shiffbauer are the sole inventors of the claimed invention. Assignments by Messrs. Smith, Marosfalvy, Hutchison and Shiffbauer were executed on October 5, 2001, to Special Product Company of 8500 West 110th Street, Suite 525, Overland Park, Kansas 66210, the real party in interest.

II. Related Appeals and Interferences

No related appeals or interferences are known to the Appellants which may directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. Status of Claims

The present application, which claims priority benefit of a provisional application titled "Segmented Telecommunications Enclosure", Serial No. 60/221,234, filed July 27, 2000, originally presented 18 claims, with claims 1, 10, and 16 being the only original independent claims.

In a first Office Action, dated August 14, 2002, all pending claims, 1-18, were rejected. More specifically, the Examiner:

rejected claims 1-4, 6, 7, 9-14, 16, and 17 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,896,268 (hereafter referred to as "Beavers");

rejected claim 5 under 35 U.S.C. §103(a) as being unpatentable over Beavers; and

rejected claims 8, 15, and 18 under 35 U.S.C. §103(a) as being unpatentable over Beavers in view of U.S. Patent No. 4,195,201 (hereafter referred to as "Gryl").

In response to these rejections, the Applicant canceled claims 9 and 17 without

prejudice or disclaimer; amended claims 1, 7, and 8, including rewriting claims 7 and 8 in independent form; and added new claims 19 and 20.

In a second Office Action, dated May 7, 2003, all pending claims, 1-8, 10-16, and 18-20, were again rejected, and the rejections were made final. The Examiner asserted that the Applicant's arguments had been fully considered. The Applicant notes, however, that the Examiner's rejections and comments in support thereof were substantially identically reiterated, even to the extent of again rejecting claims 9 and 17 though these claims had been canceled in the Applicant's previous response.

Claims 1-8, 10-16, and 18-20 are currently pending. Claims 1, 7, 8, 10, 16, 19 and 20 are independent claims. The rejections of claims 1-8, 10-16, and 18-20 are appealed.

IV. Status of Amendments

All amendments submitted by the Appellant have been entered.

V. Summary of the Invention

It is often necessary to house telecommunications, signaling, and other electronic equipment in protective enclosures so that the equipment may be located where needed, often being mounted on telephone poles or within subterranean manholes. For example, ever-increasing use of wide area networks (WANs), particularly the Internet, and other telecommunication innovations has increased demand for high-speed, high-bandwidth digital telecommunications services, such as ISDN, (X)DSL, and T1, in homes and businesses. Due to signal propagation limitations, these digital services require special electronic equipment, including repeaters and doublers, to repeat signals when end-users are too far from a provider's central office.

Telecommunications equipment enclosures have been developed to hold large numbers of these repeaters or doublers, and have sophisticated passive heat dissipation features. Unfortunately, these enclosures are difficult to raise or lower, position, and install, particularly in the tight confines of a manhole, potentially resulting in worker injury or damage to the enclosure. It is common for technicians to hard-wire a cable tail to the enclosure and use the cable tail to lower the heavy, fully-loaded enclosure into a

manhole. It will be appreciated that this places a great deal of stress on the cable and often breaks or otherwise damages one or more seals on the enclosure. After the enclosure has been lowered into the hole, it must be positioned against a wall or rack and then held in place while being bolted or otherwise secured thereto, which can be extremely difficult given the weight and size of the enclosure.

Adding to the difficulty of installation is a very stiff and substantially inflexible cable assembly that must be interfaced with the enclosure to deliver and return electronic signals and provide pressurized air. The cable assembly is typically hard-wired to the enclosure, making it labor intensive to interface. Furthermore, hard-wiring makes the cable assembly and the enclosure difficult to separate when desired, such as, for example, when removing, changing, or upgrading the enclosure or the electronic equipment housed therein. Additionally, limited space available in most mounting locations can exacerbate installation problems by interfering with or preventing positioning the enclosure so as to achieve the most convenient orientation for receiving and interfacing with the cable assembly.

The present invention solves the above-described and other problems by providing a modular electronic equipment enclosure 10 broadly comprising three separate modules, including a housing module 12; a mounting structure 14; and a cable interface module 16. The housing module 12 includes first and second body portions 20,22 for protectively housing the telecommunications, signaling, or other electronic equipment. The mounting structure 14 is separably coupleable with the housing module 12 and is adaptable for mounting in either vertical or horizontal orientations. The mounting structure 16 also includes a strain relief yoke 112 operable to provide additional mechanical support and strain relief to a connected cable assembly 11.

The cable interface module 16 is separably coupleable with the housing module 12 and provides a wire bundle 36,92 ending in quick connect/disconnect wire connectors 38,94 operable to interface the enclosure 10 and the equipment therein with the cable assembly 11. Replacing conventional hardwiring with the quick connect/disconnect wire connectors 38,94 results in less labor intensive installation and removal of the enclosure 10 during replacement, maintenance, and repair. The orientation of the interface module 16 is changeable relative to the other modules 12,14 of the enclosure 10. This

advantageously allows the cable exiting the enclosure to be positioned facing the most practical or convenient direction, such as, for example, in closest alignment with the trunk cable assembly.

Thus, the present invention provides a number of advantages over the prior art, including, for example, its ability to separate into modules 12,14,16 for easier and more convenient installation. Thus, rather than raising or lowering, positioning, and mounting an entire equipment-laden enclosure and attached cable as a unit, the present invention allows for module-by-module installation. Such modularity advantageously reduces or eliminates many of the above-described problems associated with installation, including, for example, technician injuries and equipment damage related to moving heavy fully-assembled and loaded enclosures. Furthermore, where it is desirable to use a first technician or crew to splice the cable assembly 11 into a trunk line and a second technician or crew to mount the enclosure 10, the present invention's advantageously modular design and separate and separable cable interface module 16 allows for such phased installation whereby either technician or crew may perform its assigned task substantially in advance of the other. If the interface module is installed first, for example, then the crew installing the housing module need only connect the quick connect/disconnect wire connectors 38,94 to interface the enclosure 10 and the equipment therein with the cable assembly 11. This is a distinct improvement over non-modular prior art designs that typically require that the entire enclosure be installed as a unit, including splicing into the main trunk line, during a single operation.

VI. Issues

A. Whether, with regard to the rejections of claims 1-4, 6, 7, 10-14, and 16 under 35 U.S.C. §102(b) as being anticipated by Beavers, Beavers discloses all of the claimed features of the present invention.

1. *Whether Beavers discloses a lower housing portion or base and a separate interface module as required by claims 1, 7, 8, 10, and 16.*

2. *Whether Beavers discloses an interface module or equivalent structure that can be coupled with the housing in any one of two or more possible orientations as required by claims 1, 10, 19, and 20.*
 3. *Whether Beavers discloses a strain relief yolk as required by claim 7.*
- B. Whether, with regard to the rejections of claims 8, 15, and 18-20 under 35 U.S.C. §103(a) over Beavers in view of Gryl, Gryl is analogous art with respect to the present invention.
 - C. Whether, with regard to the rejections of claims 8, 15, and 18-20 under 35 U.S.C. §103(a) over Beavers in view of Gryl, a reasonable motivation or suggestion has been identified for the proposed modification of Beavers.
 - D. Whether, with regard to the rejections of claims 8, 15, and 18-20 under 35 U.S.C. §103(a) over Beavers in view of Gryl, the cited prior art references teach or suggest all of the claim limitations.

VII. Grouping of Claims

In accordance with 37 C.F.R. § 1.192(c)(7), it shall be noted that the claims stand and fall together.

VIII. Arguments and Authorities

- A. **With regard to the rejections of claims 1-4, 6, 7, 10-14, and 16 under 35 U.S.C. § 102(b) as being anticipated by Beavers, Beavers does not disclose all of the claimed features of the present invention.**

The Examiner has, through two Office Actions, maintained his rejections of claims 1-4, 6, 7, 10-14, and 16 under 35 U.S.C. §102(b) as being anticipated by Beavers. The applicant respectfully asserts that the Examiner has misunderstood the present invention

and mischaracterized Beavers as Beavers does not disclose every feature of the rejected claims.

35 U.S.C. §102(b) states in relevant part that “[a] person shall be entitled to a patent unless the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States...” For rejections based on anticipation, there is no question of obviousness or modification of the reference, rather a single reference must teach each, every, and all aspects of the claimed invention either explicitly or impliedly, and any feature not directly taught must be inherently present. *Verdegaal Bros. v. Union Oil Co. Of California*, 2 USPQ2d 1051,1053 (Fed. Cir. 1987); MPEP §§706.02 and 2131. “The identical invention must be shown in as complete detail as is contained in the...claim.” *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913,1920 (Fed. Cir. 1989). Furthermore, a prior art device can perform all of the functions of a claimed apparatus and yet not anticipate the claimed apparatus if the claimed apparatus and the prior art device are structurally distinguishable. *In re Robertson*, 49 USPQ2d 1949,1951 (Fed. Cir. 1999); MPEP §2114. Thus, a rejection under 35 U.S.C. §102(b) is overcome by persuasively distinguishing the subject matter and language of the claims from that which is disclosed by the cited reference. MPEP §706.02(b).

Beavers discloses a repeater case 10 for housing high-density subscriber line (HDSL) modules. The case 10 includes a molded repeater base 12 and a repeater case housing 14 having cover portions 16,18, wherein the base 12 and housing 14 cooperate to provide a sealed enclosure which can contain a pressurized atmosphere. The pressurized atmosphere can be admitted through conventional valve arrangements in the base 12, such as a pressure relief valve 26 and an air bypass valve 24. A stub cable 22 provides a cable inlet 27 into the base 12 for telecommunications lines. The stub cable 22 divides into a plurality of individual connectors 23 that pass through an opening in a barrier 34 and are hardwired to the bottoms of a plurality of PC boards 36. A plurality of additional openings are provided in the barrier 34 in order to provide an air communication pathway from the interior of the base 12 into the housing 14, thereby enhancing air movement to cool the HDSL modules. At the tops of the PC boards 36 are mounted electrical

connectors 38 suitable for receiving the HDSL modules 40.

In rejecting independent claims 1, 7, 8, 10, and 16 the Examiner asserted that:

Re claims 4, 6, 7, 9-14, Beavers discloses a first body portion (16, 18), a second body portion (14), mounting structure (28), an interface module (12), a strain relief yolk (26).

Re claims 1-3, 16, 17, Beavers discloses an interface module (12) coupled to a pressurized housing portion (14,16,18) of the electronic equipment enclosure and including a first wire connector half (38) of electronic equipment (40), wherein the interface module may be coupled with the housing in one orientation. Count 2 of the Office Action Dated May 7, 2003, (emphasis added).

1. *Beavers does not disclose a lower housing portion or base and a separate interface module as required by claims 1, 7, 8, 10, and 16.*

The Applicant respectfully suggests that the Examiner may have misunderstood that which is disclosed by Beavers. The "interface module (12)" referred to by the Examiner is, in fact, the base 12 of the case 10. More specifically, that which the Examiner characterizes as an "interface module (12) coupled to a pressurized housing portion (14,16,18)", is, in fact, the base 12, housing 14, and cover portions 16,18 of the pressurized case 10. As mentioned, for rejections under 35 U.S.C. §102 "[t]he identical invention must be shown in as complete detail as is contained in the...claim." *Richardson v. Suzuki Motor Co.*, 1913,1920 (Fed. Cir. 1989). The housing of the present invention includes an upper portion and a lower portion, with the lower portion corresponding to Beavers' base. The interface module of the present invention is clearly disclosed and shown as being a separate and distinct structure separably coupleable with the lower housing portion. This advantageously allows for installing the interface module and splicing it to the main trunk line whenever practical and convenient and without regard to

installation of the mounting structure or the housing. Thus, Beavers' base cannot meet both the interface module and lower housing portion of the present invention as these are clearly different and distinct structures.

It should be noted that the feature of modularity and separability is particularly important to the present invention because it allows for the various modules, specifically the housing module, mounting structure, and interface module, to be installed separately and at different times. This is made possible because the interface module is separate and distinct from the housing, particularly the lower portion or base of the housing. By contrast, the entire enclosure of Beavers, including the base, housing, and connectors, must be installed as a unit and spliced into the main trunk line in a single operation because its elements are not comprised of separate and distinct modules.

Claims 1, 7, 8, 10, and 16 require an interface module that is a separate and distinct structure from the housing, particularly the lower portion or base of the housing. As Beavers does not disclose this feature, claims 1, 7, 8, 10, and 16 and any claims depending therefrom are structurally distinguishable from and therefore patentable over Beavers.

2. *Beavers does not disclose an interface module or equivalent structure that can be coupled with the housing in any one of two or more possible orientations as required by claims 1, 10, 19, and 20.*

The Examiner notes that the "interface module" of Beavers may be coupled with the housing in "one orientation." Count 2 of the Office Action dated May 7, 2003. As mentioned, for rejections based on anticipation a single reference must teach each, every, and all aspects of the claimed invention either explicitly or impliedly, and any feature not directly taught must be inherently present. *Verdegaal Bros. v. Union Oil Co. Of California*, 1051,1053 (Fed. Cir. 1987); MPEP §§706.02 and 2131. The interface module of the present invention is coupleable with the housing in any one of two or more possible orientations, which is a substantial advantage over Beavers and the prior art generally. More specifically, the present invention allows for easily and conveniently connecting the

cable assembly from a most convenient and desirable orientation. Beavers, as admitted by the Examiner, does not disclose this feature. Thus, even if Beavers' base could somehow be said to satisfy both the interface module requirement and separate and distinct lower housing portion requirement of the claims at issue, the base in Beavers can only be coupled with the housing in one specific orientation relative to the housing, meaning that either the entire case must be oriented to accommodate the cable stub, which may not be possible due to space limitations, or the cable stub must be bent to accommodate the case, which may not be possible or desirable depending on the required angle.

Claims 1, 10, 19, and 20 require an interface module that is coupleable with the housing in any one of two or more possible orientations. As Beavers does not disclose this feature, claims 1, 10, 19 and 20 any claims depending therefrom are structurally distinguishable from and therefore patentable over Beavers.

3. *Beavers does not disclose a strain relief yolk as required by claim 7.*

The "strain relief yolk (26)" of Beavers referred to by the Examiner is, in fact, a pressure relief valve. The strain relief yoke of the present invention functions to mechanically stabilize or clamp the cable assembly where it enters the interface module. The pressure relief valve of Beavers regulates the enclosure's pressure and does not stabilize or clamp a cable assembly. Beavers, col. 2, lines 57-60. The present invention also includes a pressure relief valve 102 which functions to control and regulate pressurization of the housing module. Thus, contrary to the Examiner's assertion, the pressure relief valve of Beavers cannot be the strain relief yoke of the present invention.

The Applicant notes that this issue was discussed in the Applicant's previous response but was entirely ignored by the Examiner who merely reiterated his previous rejection and rationale therefor. As Beavers' pressure relief valve is clearly and unarguably not a strain relief yoke, the Applicant must conclude that, contrary to the Examiner's assertion, the Applicant's arguments were in fact not fully considered.

Claim 7 requires a mounting structure including a strain relief yolk to stabilize or

clamp the cable assembly where it enters the interface module. As Beavers does not disclose this feature, claim 7 is structurally distinguishable from and therefore patentable over Beavers.

B. With regard to the rejections of claims 8, 15, and 18-20 under 35 U.S.C. §103(a) over Beavers in view of Gryl, Gryl is non-analogous art with respect to the present invention.

The Examiner has, through two Office Actions, maintained his rejections of claims 8, 15, and 18-20 under 35 U.S.C. § 103(a) over Beavers in view of Gryl. The Applicant respectfully asserts that Gryl is not, as required, properly analogous art with respect to the present invention, and therefore cannot support a finding of obviousness.

The primary test for determining whether a prior art reference is properly analogous with respect to an invention is as follows:

Two criteria have evolved for determining whether prior art is analogous: (1) whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not within the same field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved. *In re Clay*, 23 USPQ2d 1058, 1060 (Fed. Cir. 1992).

Furthermore, an invention cannot be considered to be within the field of endeavor of a prior art reference merely because both relate to the same industry. *Id.* 1060. However, "[a] reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to the inventor's attention in considering his problem". *Id.* 1061. Patent examination is necessarily conducted by hindsight, with complete knowledge and benefit of the applicant's invention as a guide. *In re Oetiker*, 24 USPQ2d 1443,1447 (Fed. Cir. 1992). For this reason, it is necessary to consider the

“reality of the circumstances” in deciding in which fields a person of ordinary skill in the art would reasonably be expected to look for the solution to the problem facing the inventor. *Id.* 1447. Ultimately, a rejection based on non-analogous art cannot be sustained. *Id.* 1061.

The test set forth in *In re Clay* was tellingly applied, for example, in *Wang Laboratories, Inc. v. Toshiba Corp.*, which is cited by and discussed in MPEP §2141.01(a) in the context of determining analogousness in the electrical arts. *Wang Laboratories, Inc. v. Toshiba Corp.*, 26 USPQ2d 1767 (Fed. Cir. 1993). Wang Laboratories, Inc. (hereinafter referred to as “Wang”), as assignee, brought suit against a number of parties, including Toshiba Corp. and NEC Corp., for infringement of U.S. Patent Nos. 4,656,605 (hereinafter referred to as the “‘605 patent”) and 4,727,513 (hereinafter referred to as the “‘513 patent”). *Id.* 1070. These patents relate to and claim certain types of single in-line memory modules (SIMMs) (hereinafter referred to as the “Wang SIMMs”). *Id.* 1770. At trial, a jury found that SIMMs manufactured by Toshiba Corp. and NEC Corp. infringed certain claims of the ‘605 and ‘513 patents. *Id.* 1770. In relevant part, Toshiba Corp. and NEC Corp. moved for JNOV, which was denied, and thereafter appealed. *Id.* 1770.

On appeal, Toshiba Corp. and NEC Corp. argued that the claims at issue were invalid for obviousness under 35 U.S.C. §103 in light of U.S. Patent No. 4,281,392 to Allen-Bradley Co. and its commercial counterpart the X9 SIMM (hereinafter referred to as the “Allen-Bradley SIMM”). *Id.* 1772. Toshiba Corp. and NEC Corp. argued that the Allen-Bradley patent and the Allen-Bradley SIMM were analogous to the claimed subject matter and effective to render the relevant claims of the ‘605 and ‘513 patents invalid. *Id.* 1772.

The court held that an adequate jury instruction regarding analogous art had been provided at trial, and held that the jury’s finding of non-analogous art was supported by substantial evidence. *Id.* 1773. Specifically, the court cited the criteria set forth in *In re Clay*, and noted that “[t]he Allen-Bradley art is not in the same field of endeavor as the claimed subject matter merely because it relates to memories ... [Allen-Bradley] involves memory circuits in which modules of varying sizes may be added or replaced; in contrast, the subject patents teach compact modular memories”. *Id.* 1773.

In finding substantial evidence to support the jury’s finding, the court noted that the

Wang SIMMs were pertinent to the field of personal computers, and were designed to provide compact computer memory with minimum size, low cost, easy repairability, and easy expandability. *Id.* 1773. Contrastingly, the Allen-Bradley SIMMs were developed for use in a controller of much larger industrial machinery and could not be used in a personal computer. *Id.* 1773. Thus, while the Wang SIMMs were purposefully designed to be small, size was not a consideration for the Allen-Bradley SIMMs. *Id.* 1773. For these reasons, the court held, the Allen-Bradley prior art was non-analogous and not reasonably pertinent to the '605 and '513 patents. *Id.* 1773.

The test set forth in *In re Clay* was also tellingly applied, for example, in *In re Oetiker*, which is cited by and discussed in MPEP §2141.01(a) in the context of determining analogousness in the mechanical arts. *In re Oetiker*, 24 USPQ2d 1443 (Fed. Cir. 1992). In *In re Oetiker*, an improvement was claimed to a stepless, earless metal clamp, with the improvement being a preassembly hook which serves to both maintain a preassembly condition of the clamp and to disengage automatically when the clamp is tightened. *Id.* 1445. All claims were rejected over the combination of U.S. Patent No. 4,492,004 to Oetiker, which disclosed the unimproved clamp, and U.S. Patent No. 3,426,400 to Lauro, which disclosed a plastic hook and eye fastener for use in garments. *Id.* 1445.

Oetiker argued during prosecution that Lauro's garment hook was non-analogous art in that a person of ordinary skill seeking to solve the problem facing Oetiker would not look to the garment art for the solution. *Id.* 1445. The Examiner argued that because garments commonly use hooks for securement, a person faced with the problem of unreliable maintenance of the pre-assembly configuration of an assembly line metal hose clamp would look to the garment industry art. *Id.* 1445. On Appeal, the Board held that Lauro was analogous art because both Lauro's and the Oetiker's inventions relate to "a hooking problem". *Id.* 1445.

The court, however, disagreed, stating that it had not been shown that a person of ordinary skill seeking to solve the problem facing Oetiker would reasonably be expected or motivated to look to fasteners for garments. Furthermore:

The combination of elements from non-analogous sources, in a manner that reconstructs the applicant's invention only with the benefit of hindsight, is insufficient to present a *prima facie* case of obviousness. There must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination. That knowledge cannot come from the applicant's invention itself. *Id.* 1446.

In the present case, Gryl discloses a plurality of inductive coils mounted in a coil module which is comprised of an elongating housing having a substantially oval cross section. A sealing compound encapsulates the coils and a layer of epoxy covers the compound. Specifically, it is noted in Gryl that the invention "is related to loading coil assemblies". Gryl, col. 1, lines 5-8.

Applying the criteria of *In re Clay* as interpreted in *Wang Laboratories, Inc.* and in *In re Oetiker*, Gryl is not in the same field of endeavor as the present invention even though both may relate to the very broad problem of protecting electronic equipment. Just as all memories were not the same in *Wang Laboratories, Inc.*, nor all hooking problems the same in *In re Oetiker*, all electronic protection problems are not in the same field of endeavor. Gryl does not concern in any way an enclosure for housing active telecommunications equipment, signaling, or other electronic equipment such as repeater and doubler cards. An inventor looking to improve the design of a protective enclosure for telecommunications equipment could not reasonably be presumed to know of or seek inspiration from Gryl as Gryl is concerned only with inductive coils to provide a lumped impedance for a transmission line. The teachings of Gryl, being concerned with protecting large inductive coils, are not reasonably or sufficiently pertinent or related to the endeavor of the present invention, which is concerned with mounting and protectively housing active telecommunications equipment, signaling, or other electronic equipment such as repeater and doubler cards.

As Gryl is non-analogous art with regard to the present invention, the rejections of claims 8, 15, and 18-20 over Beavers in view of Gryl is improper.

C. With regard to the rejections of claims 8, 15, and 18-20 under 35 U.S.C. §103(a) over Beavers in view of Gryl, no reasonable motivation or suggestion has been identified for the proposed modification of Beavers.

The Examiner has, through two Office Actions, maintained his rejections of claims 8, 15, and 18-20 under 35 U.S.C. §103(a) over Beavers in view of Gryl. The Applicant respectfully asserts that it is not possible or reasonable to modify Beavers in the manner proposed by the Examiner, and furthermore, that the proposed modification runs contrary to Beavers' expressed purposes and teachings and therefore it cannot be said that Beavers suggests the desirability of the proposed modifications. Thus, the proposed modifications cannot be obvious and the Examiner has failed to establish the requisite *prima facie* case of obviousness.

Obviousness, it will be appreciated, can be a problematic basis for rejection because the Examiner, in deciding that a feature is obvious, has benefit of the Applicant's disclosure as a blueprint and guide, whereas one with ordinary skill in the art would have no such guide, in which light even an exceedingly complex solution may seem easy or obvious. Furthermore, once an obviousness rejection has been made, the Applicant is in the exceedingly difficult position of having to prove a negative proposition (i.e., non-obviousness) in order to overcome the rejection. For these reasons, MPEP §2142 places upon the Examiner the initial burden of establishing a *prima facie* case which requires, among other things, that there be identified some motivation or suggestion in the prior art or in the knowledge of one with ordinary skill to modify the reference or to combine reference teachings. If the Examiner fails to establish the requisite *prima facie* case, the rejection is improper and will be overturned. *In re Rijckaert*, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). Only if the Examiner's burden is met does the burden shift to the applicant to provide evidence to refute the rejection.

The Examiner must satisfy three criteria in order to establish the requisite *prima facie* case of obviousness: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in

the art, to modify the reference or combine their teachings; (2) there must be a reasonable expectation of success; and (3) the prior art reference (or combination of references) must teach or suggest all the claim limitations. MPEP §706.02(j), citing *In re Vaeck*, 20 USPQ2d 1438 (Fed. Cir. 1991). Furthermore, "[t]he mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." *In re Fritch*, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992); see also *In re Gordon*, 221 USPQ2d 1125, 1127 (Fed. Cir. 1984). Additionally, "if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." MPEP §2143.01.

In meeting this initial burden, the Examiner "cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention" *In re Fine*, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988). The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on the applicant's disclosure. *In re Vaeck*, 20 USPQ 2d 1438, 1442 (Fed. Cir. 1991). Thus, "[m]easuring a claimed invention against the standard established by section 103 requires the oft-difficult but critical step of casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. See e.g., *W. L. Gore & Assoc., Inc. v. Garlock, Inc.*, 220 USPQ 303, 313 (Fed. Cir. 1983).

In the present case, claims 8, 15, and 18-20 introduce the further limitation of an interface module with an interior portion filled with a sealing compound. The Examiner acknowledges that "the teachings of Beavers...does not disclose the interior portion of the interface module being filled with a sealing compound". The Examiner asserts, however, that given the teachings of both Beavers and Gryl it would have been obvious to one with ordinary skill in the art at the time the present invention was made to fill the interface module of Beavers with the sealing compound of Gryl for the purpose of protecting the interface inside the module.

Contrary to the Examiner's assertion, Beavers does not in fact disclose the interface module of the present invention, as discussed both above, in regard to rejections under 35

U.S.C. §102, and below in regard to rejections under 35 U.S.C. §103. If, however, it could somehow be said that the interface module of the present invention is met by the base of Beavers, then the Examiner's proposed modification involves filling the base with sealing compound. Beavers teaches "providing a plurality of additional openings in the Plexiglass acrylic plastic 34 in order to provide an air communication pathway from the interior of the base 12 into the housing 14". Beavers, col. 3, lines 12-15. These additional openings work in part to "provide for the possibility of atmospheric components to move upward over the modules 40 and keep them cool". Beavers, col. 3, lines 32-36. Referring to FIG. 2, the acrylic plastic barrier 34 separates the base 12 from the housing 14. Filling the base 12 with sealing compound as the Examiner proposes would eliminate any possibility of the desirable movement of atmospheric components between the base and housing as touted by Beavers. The additional openings would no longer serve any purpose, and the advantageous cooling effect would be eliminated.

As mentioned, "if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." MPEP §2143.01. Clearly the Examiner's proposed modification of the base of Beavers would render it unable to cool its internal modules in the manner that Beavers expressly emphasizes as being of great advantage and importance. Thus, the proposed modification runs contrary to Beavers' teachings and intended purpose such that there can be no logical suggestion or motivation to make the proposed modification. As a result, the Examiner has failed to establish the requisite *prima facie* case of obviousness with regard to the rejections of claims 8, 15, and 18-20.

D. With regard to the rejections of claims 8, 15, and 18-20 under 35 U.S.C. §103(a) over Beavers in view of Gryl, the combination of the cited prior art references does not teach or suggest all of the claim limitations.

The Examiner has, through two Office Actions, maintained his rejections of claims 8, 15, and 18-20 under 35 U.S.C. §103(a) over Beavers in view of Gryl. The Applicant respectfully asserts that all of the limitations of claims 8, 15, and 18-20 are not taught or

suggested by the combined teachings of Beavers and Gryl.

As previously mentioned, a prior art reference (or combination of references) must teach or suggest all of the claim limitations. MPEP §706.02(j), citing *In re Vaeck*, 1438 (Fed. Cir. 1991). Claims 8, 15, and 18-20 require an "interior portion of the interface module being filled with a sealing compound". As stated above, the "interface module (12)" referred to by the Examiner in Beavers is, in fact, the base 12 of the case 10. Thus, that which the Examiner characterizes as an interface module (12) coupled to a pressurized housing portion (14,16,18), is, in fact, the base 12, housing 14, and cover portions 16,18 of the pressurized case 10. The cable interface module of the present invention is separably coupled with the housing module. Therefore, Beavers does not disclose the interface module of the present invention. Additionally, Gryl does not disclose the interface module of the present invention, as what the Examiner refers to as an "interface module" is in actuality merely a cylindrical housing for a pair of inductive coils. More importantly for purposes of 35 U.S.C. §103, neither reference suggests an interface module or equivalent structure that is separate and distinct from the housing.

Thus, the combination of Beavers and Gryl does not teach or suggest all of the limitations found in claims 8, 15, and 18-20, and the Examiner has therefore failed to establish the requisite *prima facie* case of obviousness.

E. Conclusion

With regard to the rejections of claims 1-4, 6, 7, 10-14, and 16 under 35 U.S.C. §102(b) as being anticipated by Beavers, Beavers clearly does not disclose all of the claimed features of the present invention. More specifically, Beavers does not disclose a lower housing portion or base and a separate and distinct interface module as required by claims 1, 7, 8, 10, and 16; an interface module or equivalent structure that can be coupled with the housing in any one of two or more possible orientations as required by claims 1, 10, 19, and 20; or a strain relief yolk as required by claim 7.

With regard to the rejections of claims 8, 15, and 18-20 under 35 U.S.C. §103(a) over Beavers in view of Gryl, Gryl is clearly non-analogous art with respect to the present invention. More specifically, the teachings of Gryl are not reasonably or sufficiently

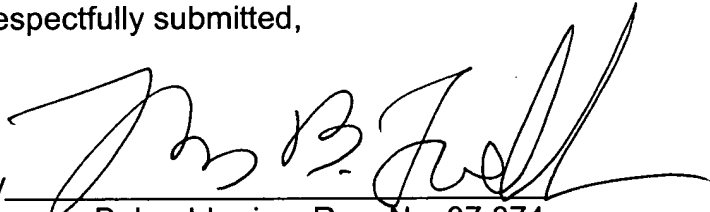
pertinent or related to the endeavor of the present invention. An inventor looking to improve the design of a housing for telecommunications equipment would not be presumed to know of or seek inspiration from Gryl as Gryl is concerned only with inductive coils to provide a lumped impedance for a transmission line.

With regard to the rejections of claims 8, 15, and 18-20 under 35 U.S.C. §103(a) over Beavers in view of Gryl, no reasonable motivation or suggestion has been identified for the proposed modification of Beavers. More specifically, the proposed modification of filling the base of Beavers with a sealing material would severely restrict or outright eliminate airflow and would therefore render Beavers unsatisfactory for its intended purpose. Thus, there can be no logical suggestion or motivation to make the proposed modification.

With regard to the rejections of claims 8, 15, and 18-20 under 35 U.S.C. §103(a) over Beavers in view of Gryl, the combination of Beavers and Gryl clearly does not teach or suggest all of the claim limitations, particularly the aforementioned features. More specifically, neither reference suggests an interface module or equivalent structure that is separate and distinct from the housing.

Accordingly, reversal of the Examiner's rejections is proper, and such favorable action is solicited.

Respectfully submitted,

By 

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IX. Appendix

Claims 1-8, 10-16, and 18-20, the rejections of which are on appeal, read as follows.

1. A modular enclosure for housing, mounting, and interfacing electronic equipment, the modular enclosure comprising:
 - a housing module for protectively housing the electronic equipment;
 - a mounting structure separably coupled with the housing and secureable to a mounting surface; and
 - an interface module separably coupled with the housing and including a first wire connector half operable to couple with a corresponding second wire connector half connected to the electronic equipment, wherein the interface module may be coupled with the housing in any one of two or more possible orientations.
2. The modular enclosure as set forth in claim 1, wherein the electronic equipment is telecommunications equipment.
3. The modular enclosure as set forth in claim 1, wherein the electronic equipment is signaling equipment.
4. The modular enclosure as set forth in claim 1, wherein the housing module includes -
 - a first body portion operable to receive and retain the electronic equipment; and
 - a second body portion operable to cooperate with the first body portion to substantially enclose the electronic equipment,wherein the housing module provides a set of symmetrically-spaced threaded studs for separably coupling the housing module with the interface module.
5. The modular enclosure as set forth in claim 1, wherein the housing module includes one or more handles to facilitate handling.

6. The modular enclosure as set forth in claim 1, wherein the mounting structure is operable to secure to a mounting surface and to provide the housing module with an operating orientation which is perpendicular to the mounting surface.

7. A modular enclosure for housing, mounting, and interfacing electronic equipment, the modular enclosure comprising:

- a housing module for protectively housing the electronic equipment;

- a mounting structure separably coupled with the housing and securable to a mounting surface, the mounting structure including a strain relief yolk operable to support a cable assembly; and

- an interface module separably coupled with the housing and including a first wire connector half operable to couple with a corresponding second wire connector half connected to the electronic equipment.

8. A modular enclosure for housing, mounting, and interfacing electronic equipment, the modular enclosure comprising:

- a housing module for protectively housing the electronic equipment;

- a mounting structure separably coupled with the housing and securable to a mounting surface; and

- an interface module separably coupled with the housing and including a first wire connector half operable to couple with a corresponding second wire connector half connected to the electronic equipment, wherein an interior portion of the interface module is filled with a sealing compound.

10. A modular enclosure for housing, mounting, and interfacing electronic equipment, the modular enclosure comprising:

a housing module for protectively housing the electronic equipment, the housing module including -

a first body portion for receiving and retaining the electronic equipment, and

a second body portion operable to cooperate with the first body portion to substantially enclose the electronic equipment;

a mounting structure separably coupled with the housing and operable to secure to a mounting surface; and

an interface module separably coupleable with the housing in any of two or more possible orientations.

11. The modular enclosure as set forth in claim 10, wherein the electronic equipment is telecommunications equipment.

12. The modular enclosure as set forth in claim 10, wherein the electronic equipment is signaling equipment.

13. The modular enclosure as set forth in claim 10, wherein the housing module includes one or more handles to facilitate handling.

14. The modular enclosure as set forth in claim 10, wherein the mounting structure includes a strain relief yolk operable to support the cable assembly.

15. The modular enclosure as set forth in claim 10, wherein an interior portion of the interface module is filled with a sealing compound.

16. An interface module for interfacing a cable assembly with an electronic equipment enclosure housing electronic equipment, the interface module being coupleable with a pressurized housing portion of the electronic equipment enclosure and including a first wire connector half operable to couple with a corresponding second wire connector half connected to the electronic equipment.

18. The interface module as set forth in claim 16, wherein an interior portion of the interface module is filled with a sealing compound.

19. A modular enclosure for housing, mounting, and interfacing electronic telecommunications equipment, the modular enclosure comprising:

- a housing module for protectively housing the electronic telecommunications equipment;

- a mounting structure separably coupled with the housing and securable to a mounting surface, the mounting structure including a strain relief yolk operable to support a cable assembly; and

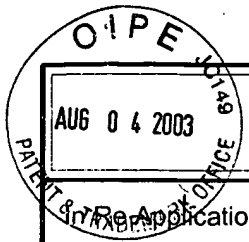
- an interface module separably coupled with the housing and including a first wire connector half operable to couple with a corresponding second wire connector half connected to the electronic telecommunications equipment, with an interior portion of the interface module being filled with a sealing compound, wherein the interface module may be coupled with the housing in any one of two or more possible orientations.

20. A modular enclosure for housing, mounting, and interfacing electronic signaling equipment, the modular enclosure comprising:

a housing module for protectively housing the electronic signaling equipment;

a mounting structure separably coupled with the housing and securable to a mounting surface, the mounting structure including a strain relief yolk operable to support a cable assembly; and

an interface module separably coupled with the housing and including a first wire connector half operable to couple with a corresponding second wire connector half connected to the electronic signaling equipment, with an interior portion of the interface module being filled with a sealing compound, wherein the interface module may be coupled with the housing in any one of two or more possible orientations.



TRANSMITTAL OF APPEAL BRIEF (Small Entity)

Docket No.
30646

In Re Application Of: Smith, Kevan et al.

Serial No.
09/916,521

Filing Date
07/27/2001

Examiner
Ngo, Hung V.

Group Art Unit
2831

Invention: MODULAR ELECTRONIC EQUIPMENT ENCLOSURE COMPRISING SEALED CABLE INTERFACE MODULE

TO THE COMMISSIONER FOR PATENTS:

Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on:

Applicant is a small entity under 37 CFR 1.9 and 1.27.

A verified statement of small entity status under 37 CFR 1.27:

- ☐ is enclosed.
☐ has already been filed in this application.

The fee for filing this Appeal Brief is: \$160.00

- ☒ A check in the amount of the fee is enclosed.
☐ The Director has already been authorized to charge fees in this application to a Deposit Account.
☒ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 19-0522

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Signature

Dated: August 4, 2003

Thomas B. Luebbering, Reg. No. 37,874
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AP/2831
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of:)
) Group Art Unit: 2831
SMITH, KEVAN et al.)
)
Serial No. 09/916,521)
) Examiner: NGO, HUNG V.
Filed: 07/27/2001)
)
Title: MODULAR ELECTRONIC EQUIPMENT)
ENCLOSURE COMPRISING SEALED CABLE)
INTERFACE MODULE)

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EXPRESS MAIL TRANSMITTAL

Transmitted herewith are: Express Mail Transmittal; Transmittal of Appeal Brief; Appeal Brief (25 pages) in triplicate; \$160.00 Filing Fee; and Return Postcard.

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Respectfully submitted,

HOVEY WILLIAMS LLP

Dated: August 4, 2003

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(Docket No. 33900)